

REMARKS:

Claim 20 is directed to a non-elected invention and was previously withdrawn. Claims 1-19 are pending in the application.

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,774,553 to Jensen ("Jensen") in view of U.S. Patent No. 5,535,861 to Young ("Young").

Rejections Under 35 U.S.C. § 103(a):

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jensen in view of Young. However, since Jensen and Young, whether considered separately or in combination as proposed by the Examiner, fails to disclose all of the limitations of Claims 1-19 as discussed below, this rejection is respectfully traversed.

Claims 1-10

Claim 1 is an independent claim, and Claims 2-10 depend, directly or indirectly, from Claim 1. Accordingly, the following remarks made in connection with Claim 1 apply equally to Claims 2-10.

Jenson discloses a damper for lead-lag control. The damper comprises a cylinder element (106) and a piston element (108). The piston element (108) is carried by a piston rod (114) which extends through packing glands (116, 118). The piston rod (114) drives piston (108) within cylinder (106). Axial movement of piston (108) is limited by stops (124, 126) at opposite ends of cylinder (106) to limit the stroke of piston (108) in cylinder (106). Damping action is obtained by a restricted passage (146) in piston (108), which connects fluid chambers (110, 112) on either side of piston (108) within cylinder (106). Conduit (152) provides a means for bypassing the fluid around piston (108) so as to provide a lower damping pressure.

In contrast, the claimed invention is completely different from Jenson for at least the reasons stated below. Claim 1 includes elastomeric seals limiting movement of the piston to a path along the axis of the piston. Jenson does not disclose seals limiting movement of the piston to a path along the axis of the piston. Instead, the piston disclosed by Jenson is directed by an axial piston rod and limited in the axial direction by stops located on the axial piston rod. Further, Claim 1 includes, when the flow of fluid through the primary passage is permitted, movement of the piston is resisted by a first spring rate due to a shear force required to cause shear deflection of the seals. Jenson does not disclose a shear force required to cause shear deflection of the seals. The damper in Jensen uses fluid flowing through and around the piston in order to provide a damping result, which is completely different than using shear deflection of seals to resist the movement of the piston. Even further, Claim 1 includes, when the flow of fluid through the primary passage is restricted, movement of the piston is resisted by a second spring rate due to a fluid force required to causing bulging of the seals. In contrast, Jensen does not disclose a second spring rate due to a fluid force required to cause bulging deflection of the seals. Jenson discloses the use of multiple fluid paths in order to provide different damping forces, which is completely different than causing bulging defection of the seals to provide a second spring rate.

Young discloses a linear damper that provides greater damping in a second direction than in a first direction. Young disclose the use of multiple disks (22) which are constructed of a cylindrical metal sleeve (24) coated on its external surface by an elastomeric layer (25). Applications of the linear damper include holding open an engine cowl door or an overhead luggage compartment in an aircraft cabin. Young fails to cure the deficiencies of Jensen such that that neither Young, nor Jenson, or any combination thereof, disclose all of the limitations of Claim 1.

Accordingly, Jensen and Young, whether considered separately or in combination as proposed by the Examiner, fail to disclose or suggest all of the limitations of Claim 1, or Claims 2-10 which depend, directly or indirectly, from Claim 1. Therefore, it is respectfully requested that the rejection of Claims 1-10 under 35 U.S.C. § 103(a) be reconsidered and withdrawn. The Applicants respectfully request that Claims 1-10 be allowed.

Claims 11-19

Claim 11 is an independent claim, and Claims 12-19 depend, directly or indirectly, from Claim 11. Accordingly, the following remarks made in connection with Claim 11 apply equally to Claims 12-19.

Jenson discloses a damper for lead-lag control. The damper comprises a cylinder element (106) and a piston element (108). The piston element (108) is carried by a piston rod (114) which extends through packing glands (116, 118). The piston rod (114) drives piston (108) within cylinder (106). Axial movement of piston (108) is limited by stops (124, 126) at opposite ends of cylinder (106) to limit the stroke of piston (108) in cylinder (106). Damping action is obtained by a restricted passage (146) in piston (108), which connects fluid chambers (110, 112) on either side of piston (108) within cylinder (106). Conduit (152) provides a means for bypassing the fluid around piston (108) so as to provide a lower damping pressure.

In contrast, the claimed invention is completely different from Jenson for at least the reasons state below. Claim 11 includes elastomeric seals limiting movement of the piston to a path along the axis of the piston. Jenson does not disclose seals limiting movement of the piston to a path along the axis of the piston. Instead, the piston disclosed by Jenson is directed by an axial piston rod and limited in the axial direction by stops located on the axial piston rod. Further, Claim 11 includes, when the flow of fluid through the primary passage is permitted, movement of the piston is resisted by a first spring rate due to a shear force required to cause shear deflection of the seals. Jenson does not disclose a shear force required to cause shear deflection of the seals. The damper in Jensen uses fluid flowing through and around the piston in order to provide a damping result, which is completely different than using shear deflection of seals to resist the movement of the piston. Even further, Claim 11 includes, when the flow of fluid through the primary passage is restricted, movement of the piston is resisted by a second spring rate due to a fluid force required to causing bulging of the seals. In contrast, Jensen does not disclose a second spring rate due to a fluid force required to cause bulging deflection of the seals. Jenson discloses the use of multiple fluid paths in order to provide different damping

forces, which is completely different than causing bulging defection of the seals to provide a second spring rate.

Young discloses a linear damper that provides greater damping in a second direction than in a first direction. Young disclose the use of multiple disks (22) which are constructed of a cylindrical metal sleeve (24) coated on its external surface by an elastomeric layer (25). Applications of the linear damper include holding open an engine cowling door or an overhead luggage compartment in an aircraft cabin. Young fails to cure the deficiencies of Jensen such that that neither Young, nor Jensen, or any combination thereof, disclose all of the limitations of Claim 11.

Accordingly, Jensen and Young, whether considered separately or in combination as proposed by the Examiner, fail to disclose or suggest all of the limitations of Claim 11, or Claims 12-19 which depend, directly or indirectly, from Claim 11. Therefore, it is respectfully requested that the rejection of Claims 11-19 under 35 U.S.C. § 103(a) be reconsidered and withdrawn. The Applicants respectfully request that Claims 11-19 be allowed.

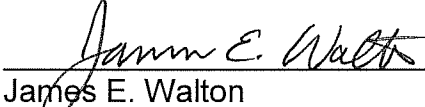
CONCLUSION:

The Applicants submit that the foregoing remarks place the subject application in condition for allowance. As such, the Applicants respectfully request reconsideration and a Notice of Allowance.

This Response to Office Action is being filed via the U.S. Patent and Trademark Office's EFS-Web electronic filing system. No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees which may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Respectfully submitted,

8/21/09
Date


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